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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,058	04/21/2004	Norihiro Nanba	1232-5382	6792

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EXAMINER


COLLINS, DARRYL J

ART UNIT PAPER NUMBER

2873

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/829,058	Applicant(s) NANBA ET AL. 	
	Examiner Darryl J. Collins	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 14-16, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 5, 11-13, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Shinohara. Shinohara teaches a lens system comprising from the object side to the image side, respectively: an aperture stop (Figure 1, element St), a first lens element having a convex-shaped image side and a positive optical power (Figure 1, element L1), a second lens element having a concave-shaped object side surface and a negative optical power (Figure 1, element L2) wherein the conditional restraints in terms of the radii of the first and second lens surfaces are satisfied (Table 1) as claimed in independent claim 1. Fujioka also teaches such a system satisfying the conditional restraint in relation to the focal length of the second lens element with respect to the total focal length of the lens system (Table 1) as claimed in dependent claim 2, a third lens element positioned at the image side of the second lens having positive optical power (Figure 1, element L3) and satisfying the conditional restraint in relation to the focal length of the third lens element and the total focal length of the lens system (Table 1) as claimed in dependent claim 3

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and a lens system satisfying the conditional restraint in relation to the index of refraction (Table 1) as claimed in dependent claim 4.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 10, 14 and 15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kawakami. Kawakami teaches a lens system comprising from the object side to the image side, respectively: an aperture stop (Figure 1, element S), a first lens element having a convex-shaped image side and a positive optical power (Figure 1, element L1), a second lens element having a concave-shaped object side surface and a negative optical power (Figure 1, element L2) and a third lens element having a positive optical power (Figure 1, element L3) satisfying the conditional restraints (Table 1) as claimed in independent claim 9 and dependent claim 10. Kawakami further teaches the lens system as claimed in independent claim 9 for use in an image-taking apparatus and having a photoelectric conversion element (column 1, lines 6-36) as claimed in dependent claims 14 and 15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara in view of Sato et al. Although Shinohara teaches all of the claimed limitations as claimed in independent claim 1, Shinohara fails to teach at least one of the first, second or third lens element being constructed of plastic. Sato et al teach a compact photographing lens system wherein the lenses are constructed of plastic (column 9, lines 62-64) as claimed in dependent claim 6. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the well-know and conventional means of constructing optical lenses using plastics as taught by Sato et al to produce the lens system of Shinohara to reduce the cost of manufacturing the lens system.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara in view of Kawakami. Shinohara again teaches all claimed limitations as claimed in independent claim 1 but fails to teach an image taking apparatus including a photoelectric element to receive an image formed by the lens system as claimed in dependent claims 7 and 8. Kawakami teaches a lens system comprising from the object side to the image side, respectively: an aperture stop (Figure 1, element S), a first lens element having a convex-shaped image side and a positive optical power (Figure 1, element L1), a second lens element having a concave-shaped object side surface and a negative optical power (Figure 1, element L2) and further teaches an image-taking apparatus comprising a photoelectric conversion element (column 1, lines 6-36) as claimed in dependent claims 7 and 8. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lens system as taught by Shinohara with the image-taking apparatus of Kawakami to capture the image.

Claims 16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhardt in view of Kawakami. Eckhardt teaches a lens system comprising from the object side to the image side, respectively: a first lens element having a convex-shaped image side and a positive optical power (Figure 2, element 26), a second lens element having a concave-shaped object side surface and a negative optical power (Figure 2, element 28) wherein the conditional restraints in terms of the radii of the first and second lens surfaces are satisfied (column 5, lines 18-28) as claimed in independent claim 16, but fails to teach an aperture stop as being the first element of the lens system as claimed in independent claim 1 and the use of the claimed lens in an image taking device as claimed in dependent claims 19 and 20. Kawakami teaches a similar lens system having an aperture stop as the first element, from the object to the image side, of the lens system (Figure 1, element S) and the use of the lens system in an image-taking device as claimed in dependent claims 19 and 20. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the aperture stop of Kawakami along with the well known use of the lens system in an image-taking device with the lens system of Eckhardt to produce quality images.

Allowable Subject Matter

Claims 5, 11-13, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. Although the prior art teaches a lens

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system having the structure as claimed in dependent claims 5, 11-13, 17 and 18, the prior art fails to teach such a lens system satisfying the conditional restraints as claimed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bennett, Ackroyd, Fujioka, Nagahara, Yamaguchi et al, Kim et al and Nakamura all teach imaging lens systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darryl J. Collins whose telephone number is 571-272-2325. The examiner can normally be reached on 6:30 - 5:00 Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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